

B.C.A. (Part-II) EXAMINATION – 2017

(Faculty of Science)
(Three-Year Scheme of 10+2+3 Pattern)

OPERATING SYSTEM – 203

Time Allowed: Three Hours

Maximum Marks: 100

Question paper consists of three parts.
All THREE parts are compulsory

Part - I (very short answer) consists 10 questions of two marks each with two questions from each unit. Maximum limit for each question is up to 40 words.

Part - II (short answer) consists 5 questions of four marks each with one question from each unit. Maximum limit for each question is up to 80 words.

Part - III (Long answer) consists 5 questions of twelve marks each with one question from each unit with internal choice.

Write your roll number on question paper before start writing answers of questions

Part – I

Attempt all questions. Each question carries 2 marks.

10 x 2=20

1. (i) What do you mean by Operating System?
- (ii) Discuss the goal of authentication.
- (iii) What is the Multiprogramming System?
- (iv) Enlist the various service provide by the Operating System.
- (v) What is System call?
- (vi) Write the definition of the Process.
- (vii) Enlist the various States of Process.
- (viii) What is Thread?
- (ix) What do you mean by Logical Address?
- (x) Differentiates between file and directory.

Part – II

Attempt all questions. Each question carries 4 marks.

2. Discuss the various criteria for measuring the performance of scheduling mechanism. 4
3. Write the method of recovery from deadlock? 4
4. Explain demand paging in brief. 4
5. Discuss the file system in brief. 4
6. What do you mean by encryption? Discuss. 4

Part – III

7. Discuss Process Control Block (PCB) with the help of proper illustration. Also explain various types of scheduler. 12

OR

Explain various preemptive scheduling mechanism in detail. 12

8. How can a Deadlock situation be avoided? Discuss. 12

OR

How to detect a Deadlock? Explain. 12

9. Discuss single program partition, fixed sized partitioning and variable sized partition memory allocation technique in brief. 12

OR

Explain various page replacement algorithm in brief with the help of suitable example. 12

10. Discuss strategies of contiguous, linked and index allocation in the file system. 12

OR

12

- 11 How a file can be protected? Discuss various protection mechanism used for protecting files.

12

OR